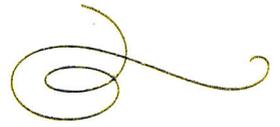
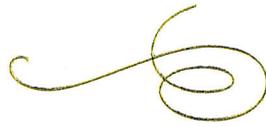


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The Director

of the United States Patent and Trademark Office has received an application for a patent for a new and useful invention. The title and description of the invention are enclosed. The requirements of law have been complied with, and it has been determined that a patent on the invention shall be granted under the law.

Therefore, this United States

Patent

grants to the person(s) having title to this patent the right to exclude others from making, using, offering for sale, or selling the invention throughout the United States of America or importing the invention into the United States of America, and if the invention is a process, of the right to exclude others from using, offering for sale or selling throughout the United States of America, products made by that process, for the term set forth in 35 U.S.C. 154(a)(2) or (c)(1), subject to the payment of maintenance fees as provided by 35 U.S.C. 41(b). See the Maintenance Fee Notice on the inside of the cover.


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(12) **United States Patent**
Bernardini et al.

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(45) **Date of Patent:** **Feb. 19, 2019**

(54) **SYSTEM AND METHOD FOR
AUTOMATICALLY DETECTING THE
PRESENCE OF CAGES IN THE SHELF OF A
FACILITY**

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 209 days.

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PCT Pub. Date: **Aug. 7, 2014**

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A01K 1/03 (2006.01)
A01K 1/00 (2006.01)
A01K 29/00 (2006.01)

(52) **U.S. Cl.**
CPC **A01K 1/031** (2013.01); **A01K 1/0047** (2013.01); **A01K 29/005** (2013.01)

(58) **Field of Classification Search**
CPC A01K 1/031; A01K 29/005; A01K 1/0047
(Continued)

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(57) **ABSTRACT**

A system for automatically detecting the presence of a cage or tray for containing laboratory animals in a specific position of a facility shelf and a method for managing the data relating to the cage, implemented by the system, particularly advantageous for the laboratory technician. In particular, the system is composed of a shelf comprising a plurality of devices designed to detect the position in the facility and the ID of a cage, a central control unit designed to process, through software, the information received in order to offer the operator the possibility of tracking and managing, by means of a database, the whole facility. Numerous other functions of the system are included, such as the function designed to detect and notify, visually or through the software, the correct positioning of a cage in the shelf.

12 Claims, 18 Drawing Sheets

